UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,264	12/12/2003	Hideo Hoshuyama	118019	8658

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EXAMINER
TSAI, TSUNG YIN

ART UNIT	PAPER NUMBER
2624	

NOTIFICATION DATE	DELIVERY MODE
04/26/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/2/2011*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 2/2/2011 have been fully considered but they are not

persuasive.

> **Applicant's argument** – (pages 6-7) Applicant's argues that the prior arts are
>
> not teaching the newly amended claim language.
>
> **Examiner's response** – Examiner respectfully disagrees and directs the
>
> applicant to paragraph 0172-0174 of Kuwata et al, where the evaluation values
>
> regarding luminance considers using distance and formulas for required values.
>
> Please view the rejection below for more detail.
>
>> The rest of the dependent claims stand or fall with the rejection of
>
> independent claims discuss above.

35 USC 102 – Claim Rejection

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.

3.   Claims 1-3, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as being unpatentable

over Kuwata et al (US 2002/0025079).

(1) Regarding to claim 1, similarly claims 6 and 9:

- an image information generating part for dividing captured image data

  consisting of a signal having a plurality of data values of a plurality of pixels into a

plurality of small areas, said small areas each consisting of a plurality of the

pixels, and for generating, for each of said small areas, image information

indicating a characteristic of the captured image data

[figure 12 (image data is divided into blocks) and figures 13-14, and

paragraph 0185-0188 (histogram of luminance distribution is generated, which

is viewed as an image characteristic of the captured image data)];

- a luminance value determining part for determining a luminance value indicating

    luminosity for each of the plurality of small areas of the captured image data

    [figure 12 (division to plurality of small area with further detail processing

    for luminance value in the vertical and horizontal direction for each square)

    and paragraph 0185-0188 (histogram of luminance of the captured image data

    with summation made in gridded units), especially paragraph 0188 (histogram

    of luminance distribution)];

- an evaluation value determining part for calculating an evaluation value for each

    of the plurality of pixels, the evaluation value being calculated by selecting two or

    more small areas, including an area having the pixel for which the evaluation

    value is calculated and an other area having shorter distances to a pixel for

    which the evaluation value is being calculated from each of the plurality of pixels,

    and calculating the evaluation value for each pixel by <u>inputting</u> the respective

    luminance values of the selected small areas <u>and a distance value</u> from each

    pixel to each small area selected <u>into a formula</u>

[figure 36-37 and paragraph 0276 (evaluating weighting per block with luminance is weighted for a specific picture element to eight surrounding picture elements). Examiner views "specific picture element" as the pixel of interest of the selected block for evaluation with luminance weighting against surrounding eight picture elements, which are the close or short distance from the evaluated pixel of interest. <u>Paragraph 0172-0174 teaches where luminance evaluation can be express with difference amount values in X,Y directions and in magnitude of vectors. Examiner view equations 1, 2 as the distance values that will be enter in equation 3 for magnitude of vector (length in magnitude and direction).</u>]; and

- an image-processing part for performing correction on each of the pixels of the captured image data according to the evaluation value determined by said evaluation value determining part

  [figure 43, especially SC330-SC350 (contrast correction and lightness compensation result from determination/evaluation of generated luminance image characteristic from SC310)].

(2) Regarding claim 2:

- said image-processing part includes a luminance level correcting part for correcting a luminance level of the captured image data

[figure 43, especially SC330-SC350 (contrast correction and lightness

compensation result from determination/evaluation of generated luminance

image characteristic from SC310)]; and

- said luminance level correcting part determines a luminance level correcting

  coefficient used for the luminance level correction according to the evaluation

  value for each of said pixels determined by said evaluation value determining

  part so as to perform the luminance level correction processing multiplying the

  coefficient with the evaluation values for each of said pixels of the captured

  image data

  [Figures 33-34 and paragraph 0269-0273, especially paragraph 0273

(contrast and lightness correction/compensation for the data collected and

calculated in paragraph 0271). Figure 36-37 and paragraph 0276 disclose the

evaluation process as discuss above and further teaches the calculating

(multiplying) for the captured data, especially in figure 37 (b)-(d).].

  (3) Regarding claim 3:

- said evaluation value determining part performs a smoothing processing on the

  image information for each of said small areas generated by said image

  information generating part and determines the evaluation value according to the

  smoothed image information for each of the said small areas

[paragraph 0283-0294, especially paragraph 0293 (weighting coefficient of luminance is evaluated and further process to be average/smoothing to be obtained)].

(4) Regarding claim 5:

- wherein said evaluation value determining part determines the evaluation value by weighting the image information for each of said small areas in accordance with a ratio of distances from a pixel as a subject for the evaluation-value determination to a predetermined point in each of said small areas whose image information is to be referred to for the evaluation-value determination

  [figure 36-37 and paragraph 0276 (evaluating weighting per block with luminance is weighted for a specific picture element to eight surrounding picture elements)].

(5) Regarding claim 7:

- a divisional photometry part for dividing a subject field into a plurality of photometry areas and performing photometry for each of the photometry areas, wherein said image information generating part generates the image information based on information obtained from said divisional photometry part

  [figure 9 (division of the image by threshold means) and paragraph 0176-0179, especially paragraph 0178 (edginess determination is seen as image information from the threshold divisions)].

35 USC 103 – Claim Rejection

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwata et

al (US 2002/0025079) in view of Chen (US 6,487,309).

(1) Regarding claim 4:

Kuwata et al above teaches the evaluation value of correct low luminance of a

corner illumination on the image information of small area

[paragraph 0340 (evaluation of dark overall or contrast of edge picture

elements)].

Kuwata et al do not teach pre-correction processing with characteristic of a

photo-taking lens used for generating the captured image data, which is taught

by Chen

[figure 1 and column 4 lines 50-60 (preprocessing unit connected with lens

drive unit) and column 5 lines 60-67 (lens drive unit perform AF and AE and

white balance processing are all seen as preprocessing correction on

image information capture].

It would have been obvious to one skill in the art at the time of the invention to

modify Kuwata et al by Chen using pre-processing of the lens to stage out the

require computations, such that the end will not result in a massive time

consuming computation.

Conclusion

6.   . The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Sekiguchi et al (US 2002/0102029) discloses Image coding/decoding method,

  image coding apparatus and image decoding apparatus

- Hirai et al (2001/0003557) discloses Photometry device

- Marimont et al (US 5,710,877) discloses User-directed interaction with an image

  structure map representation of an image

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to TSUNG-YIN TSAI whose telephone number is

(571)270-1671. The examiner can normally be reached on Monday - Friday 8 am - 5

pm ESP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tsung-Yin Tsai/
Examiner, Art Unit 2624
April 4, 2011

/Vu Le/

Supervisory Patent Examiner, Art Unit 2624

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Primary Examiner, Art Unit 2624
April 21, 2011